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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/583,952	05/31/2000	Kousuke Anzai	566.38616X00	2316

20457 7590 12/03/2003

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EXAMINER

LE, BRIAN Q

ART UNIT PAPER NUMBER

2623

DATE MAILED: 12/03/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/583,952

Applicant(s)

ANZAI ET AL

Examiner

Brian Q Le

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 10/06/2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6,8-10,12-14,16-18,20-22 and 24-26 is/are rejected.
- 7) ☒ Claim(s) 3, 7, 11, 15, 19, and 23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 May 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

### **Response to Amendment and Arguments**

1. Applicant's amendment filed October 06, 2003, has been entered and made of record.
2. Applicant's arguments with regard to claims 1,2,4-6,8-10,12-14,16-18,20-22 and 24-26 have been fully considered, but are not considered persuasive because of the following reasons:

For claim 1, the Applicant argues that (on page 19) that Miyahara et al. does not disclose nor suggests the limitation of allocating each of areas S constituting each area G to some one of: areas  $T_1 - T_n$  which said digital watermark information  $b_1 - b_n$ , a bit value of the digital watermark information being 0 or 1, is respectively embedded and areas  $H_1 - H_m$  ( $1 = m$ ) in which any of bit information 0 and 1 is not embedded, or extracting digital watermark information  $b_1 - b_n$  ( $2 = n$ ), a bit value of the digital watermark information being 0 or 1. The Examiner disagrees with the Applicant. Miyahara still teaches this concept which is code bit string or code bit pattern within image data where some areas of the image will be embedded with watermarking with bit of information 0 and 1 and other area will be remained with original data of the image with also bit information 0 and 1, FIG. 3; FIG. 6, "code bit string"; FIG. 8; FIG. 10; FIG. 11; FIG. 12, S42; S44; FIG. 13 and other locations through out the reference.

Also, the Applicant argues (on page 20) that the present invention can possible detect watermark even when there is the gap in the matching. However, this limitation must be written in the claim for further consideration and examination.

Thus, the rejections of all of the claims are maintained.

#### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-2, 4-6, 8-10, 12-14, 16-18, 20-22, and 24-26 are rejected under 35

U.S.C. 102(e) as being anticipated by Miyahara U.S. Patent No. 6,341,350.

Referring to claim 1, Miyahara teaches a method embedding digital watermark information (Abstract, first 6 lines)  $b_1 - b_n$  ( $2 \leq n$ ) in image data, comprising steps of:

Dividing the image data into a plurality of areas S (The whole figure,  $6 \times 4$ ) each consisting of  $M \times N$  ( $1 \leq M, N$ ) pixels (FIG. 3);

Defining a plurality of areas G ( $8 \times 8$  block) each consisting of  $P \times Q$  ( $1 \leq P, Q$ ) of the areas S (FIG. 3);

Allocating each of the areas S constituting each area G to some one of: areas  $T_1 - T_n$  in which said digital watermark information  $b_1 - b_n$ , a bit value of the digital watermark information being 0 or 1, is respectively embedded (the gray blocks) and areas  $H_1 - H_m$  ( $1 \leq m$ ) in which any of bit information 0 and 1 is not embedded (the white blocks)(FIG. 8) (code bit string or code bit pattern within image data where some areas of the image will be embedded with watermarking with bit of information 0 and 1 and other area will be remained with regular data of the image with also bit information 0 and 1) (FIG. 3; FIG. 6, "code bit string"; FIG. 8; FIG. 10; FIG. 11; FIG. 12, S42; S44; FIG. 13);

Locating one or more areas T and one or more areas H in a predetermined arrangement in each area G (watermark pattern is a predetermined arrangement) (FIG. 8); and

Locating the plurality of areas G in a predetermined rule (column 5, lines 31-44).

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For claim 2, please refer for claim 1 for the explanation. Furthermore, Miyahara discloses areas  $J_1 - J_k$  ( $1 \leq k$ ) in which information  $p_1 - p_k$  ( $1 \leq k$ ) specifying an embedding format for embedding said digital watermark information  $b_1 - b_n$  in said areas  $T_1 - T_n$ , and areas  $H_1 - H_m$  (a block where code image data is located) (column 7, lines 45-46 and column 19, lines 10-13).

Regarding claim 4, Miyahara teaches the method of embedding digital watermark information wherein each of said areas  $G$  includes a plurality of said areas  $H$  that have been allocated so as to be asymmetric (FIG. 3) in vertical and horizontal directions in the are  $G$ .

For claim 5, please refer to claim 1 for the explanation. In addition, Miyahara teaches the method of extracting digital watermark information (the detection of watermarking by using decoder and detector) (FIG. 32, elements 21 and 22).

Regarding claim 6, please refer back to claim 2 for the explanation. Also, Miyahara discloses the method wherein recognizing the embedding format of the digital watermark information and extracting the digital watermark information according to the recognized embedding format (formatter provides the format information so that the encoder/embeds watermark and decoder/extracts watermark information so that the encoder and the decode would have the same format configuration) (column 20, lines 24-27).

For claim 8, please refer back to claims 4 and 1 for the explanation. Plus, Miyahara teaches contents of image processing carried out on the image data are judged (column 13, lines 60-63)

For claim 9, please refer to claim 1. Also, Miyahara teaches a program (column 20, line 61) product and a computer reader storage medium (column 9, lines 48-50).

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For claim 10, please refer back to claim 2 and claim 9 respectively for the explanation.

For claim 12, please refer back to claim 4 and claim 9 respectively for the explanation.

Regarding claim 13, please refer to claim 1 and claim 9 for the explanation.

For claim 14, please refer back to claim 6 and claim 9 for the explanation.

For claim 16, please refer back to claims 8 and 9 respectively for the explanation.

For claim 17, please refer to claim 1 for the explanation.

Regarding claim 18, please refer to claim 2 for the explanation.

Regarding claim 20, please refer back to claim 4 for the explanation.

Regarding claim 21, please refer back to claim 1 for the explanation.

Regarding claim 22, please refer back to claim 6 for the explanation.

Regarding claim 24, please refer back to claim 8 for further explanation.

Regarding claim 25, please refer to claim 2 for the explanation. Also, Miyahara teaches the processor (column 6, lines 42) and storage unit (column 20, line 65).

For claim 26, please refer back to claim 22 and claim 25 for the explanation.

***Allowable Subject Matter***

5. Claims 3, 7, 11, 15, 19, and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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*Conclusion*

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.



SAMIR AHMED  
PRIMARY EXAMINER

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***Contact Information***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Q Le whose telephone number is 703-305-5083. The examiner can normally be reached on 8:30 A.M - 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on 703-308-6604. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

BL  
November 21, 2003